productivity factor were set too high, LECs would be denied a reasonable return and may opt out of price caps altogether.

The FCC sought to find a balance between these poles. The inclusion of a properly calibrated productivity factor required LECs to improve efficiency to retain its profit levels, but permitted a LEC to retain the benefits of efficiency gains above and beyond the industry norm. As the Commission later said, "LECs must become more efficient, and offer innovative, high-quality services, in order to succeed under a price cap regime. If a LEC fails to keep pace with the productivity requirement embedded in the cap, it risks seeing its earnings erode."[73]

On the other hand, an overly optimistic productivity factor, which planned for efficiency gains that the LECs in fact could not meet, would put tremendous pressure on the LECs to engage in the false economy of reducing costs by downgrading investment.[74] One benefit of rate-of-return regulation was that its "cost plus" nature made it easy and risk free for LECs to provide high-quality, broad based service. Imposing an unreasonably high productivity factor could mean that the LECs would sacrifice service quality to preserve profits.

Thus, for the price cap system to work, the Commission needed to set a productivity factor that would realistically reflect how much a LEC could improve efficiency within the next

(...Continued)
[72] *Id.* at 6813-14.

[73] *Policy and Rules Concerning Rates for Dominant Carriers* (Order on Reconsideration), 6 FCC Rcd 2637, 2640 (1991) *("Reconsideration Order").*

[74] *Second Report and Order* at 6799.

year. This would necessarily be a prediction, and a somewhat uncertain one at that. However, the accuracy of the productivity factor was the key ingredient in price cap regulation and dictated the economic signals that would be sent to carriers for the coming year.

The agency knew that LECs tended to increase their productivity faster than the economy as a whole,[75] but the exact amount of the increase would vary from year-to-year. To overcome this difficulty, the FCC in its initial price cap scheme tried to estimate the historical degree to which LEC productivity had surpassed that of the general economy.[76]

Originally, the FCC conducted two studies and concluded that LEC productivity growth on average had exceeded that of the economy as a whole by 2.8% a year.[77] It accordingly set the productivity offset at that level.[78] Because this figure was recognized as uncertain, and because swings in LEC profits or losses were thought undesirable, the FCC gave carriers the option of choosing a second, higher X-Factor. The higher factor was a more challenging goal, but it also potentially permitted a greater return.[79]

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[75] *Dominant Carrier FNPRM* at 3405.

[76] *See generally Reconsideration Order* at 2645-51 ("This [initial productivity] factor was based largely upon two staff studies investigating the extent to which LECs have historically exceeded the economy as a whole in achieving improved productivity.").

[77] *Second Report and Order* at 6798.

[78] *Id.*

[79] *Id.* at 6788.

The Commission concluded that this two-tier system would provide an adequate incentive for each LEC to select the productivity factor that most closely reflected its potential efficiency savings.[80] Though these numbers were higher than previously proposed, the agency believed that they represented an "increase in the overall challenge of the price cap plan to the LECs, and substantially increased benefits to consumers."[81]

B. The FCC Implemented a Consumer Productivity Dividend to Increase the Downward Pressure on Prices.

In creating its price cap index, the Commission added to the productivity factors a "consumer productivity dividend" (CPD) of 0.5%. The rationale for this extra cost was that historical LEC productivity gains were under a rate-of-return system that provided less incentive for carriers to improve efficiency.

Under the new system of price caps, carriers would have a greater incentive to improve and innovate, and thus the agency believed that LEC productivity gains in the future would be far higher than in the past. The Commission asserted that the productivity factors which had been based on LEC's performance under a rate-of-return regime, needed to be increased by the consumer product dividend (CPD) in order to pass along these anticipated gains to consumers.[82]

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[80] *Id.*

[81] *Id.* at 6796.

[82] *Policy and Rules Concerning Rates for Dominant Carriers* (Report and Order and Second Further Notice of Proposed Rulemaking), 4 FCC Rcd 2873, 3001 (1989); *see also Price Cap Performance Review for Local Exchange Carriers* (Fourth Further Notice of Proposed Rulemaking), 10 FCC Rcd 13659, 13673 (1995) *("Price Cap FNPRM")*. ("The CPD was included in the X-Factor to reflect improvements in productivity that we believed would occur

(Continued...)

In addition to this stated policy goal, the FCC may also have been motivated by a desire to drive consumer prices down even faster. The agency seemed to have great confidence in the ability of LECs to improve their productivity after the transition to a price cap system. Given this potential for productivity increases, the Commission may have assumed that the additional cost to a LEC through the CPD would benefit the consumer even further without harming the carriers. This also had the political appeal of making the controversial price cap scheme more palatable to IXCs and consumers.

C. Sharing Was Initially Instituted in Case the FCC Chose a Wrong X-Factor and to Ensure That Ratepayers Shared in Profits from Efficiency Gains.

In addition to the X-Factor and CPD, the FCC in 1990 instituted another measure to ensure that the LECs would not receive windfall profits and that consumers would share in the profits from improved efficiency. The Commission created a procedure it termed "sharing." Under this doctrine, when a LEC's earnings exceeded a certain threshold, the LEC had to reduce its price cap index for the following year to "share" a preset portion of its earnings with customers.[83]

(...Continued)
under price caps and to flow through some of the benefit of those anticipated improvements immediately to consumers.").

[83] *Second Report and Order* at 6801.

The amount of the sharing would vary with the X-Factor the carrier had chosen.[84] A carrier choosing an X-Factor of 3.3%, was permitted to keep all returns up to 12.25%. For a rate of return between 12.25% and 16.25%, the LEC would share 50% of the additional profit with consumers. For a rate of return above 16.25%, the LEC would share all the profits beyond that level.[85]

On the other hand, if the LEC had chosen the more demanding X-Factor of 4.3%, the respective sharing thresholds increased to 13.25% and 17.25%.[86] Thus, a profit in excess of 13.25% was shared 50/50 with ratepayers, and all profit over a 17.25% rate of return was required to go toward reduction of access charges.

The result of sharing was to limit LEC profits from productivity improvements. The carrier did have a financial incentive to increase productivity, but if it proved too efficient in any given year, the extra profits could not be retained. Thus LECs would be forced to return excessive profits generated by efficiency gains. A carrier who substantially improved productivity in any given year might lose some of those savings, whereas a more mediocre carrier who improved performance only gradually over the course of several years might retain all of its profits.

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[84] Except where specified, for the remainder of this article, we include the CPD within the X-Factor.

[85] *Second Report and Order* at 6801.

[86] *Id.* at 6801-02. *See also generally* Frank & Lazarus, *supra* note 68.

Moreover, because sharing required the Commission to review rates of return, it in effect required the Commission to perform costly and difficult evaluations of the proper LEC profit margin. Thus, despite incentive-based regulation under price caps, the Commission still engaged in a retrospective evaluation of LEC profit levels to limit profit achieved through efficiency gains.

D. The Low-End Adjustment Was Established to Ensure That Rates Did Not Become Confiscatory.

While the FCC's sharing policy prevented a LEC from making a windfall profit, the low-end adjustment kept the carrier from an excessively low rate of return. Under the low-end adjustment, a LEC whose rates were below the price cap, yet who still fell below the low-end adjustment mark in a base year period, could raise its rates. This would ensure a rate of return equal to the low-end figure.[87]

The FCC, however, did not want this price floor to reward LEC inefficiency or poor performance. So the upward adjustment was allowed only to 1 percentage point below the 11.25% rate of return, i.e., the LEC was guaranteed only a 10.25% rate of return. The FCC officials also stated that they would "of course retain our authority and responsibility to examine the management of the LECs to ensure that the low earnings do not indicate mismanagement, fraud, or other misbehavior."[88]

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[87] *Second Report and Order* at 6802.

[88] *Id.*

Adding this price floor to the price cap regime created a range of prices in which the LEC, for better or worse, would remain. Under rate-of-return regulation, the Commission regulated the exact profit a LEC could earn. The price cap regulations as originally enacted in 1990 granted carriers additional flexibility and a greater incentive to improve efficiency, but shielded both producers and consumers from the full effects of market forces.

E. The Formula Incorporated Increases and Decreases for "Exogenous Costs" Outside the Carrier's Control to Ensure That Incentives Were Not Undermined and That the Carrier Did Not Receive an Unfair Windfall.

"Exogenous costs" are defined by the FCC as those costs that a LEC saves that are triggered by administrative, legislative, or judicial action beyond a carrier's control.[89] Because LECs cannot reduce such costs by improving efficiency, the Commission separated these expenses in the price cap incentive system. Without a separate adjustment for such costs, the price cap regime could have lead to unreasonably high or low rates.[90] If the carrier had to pay exogenous costs with the money saved from efficiency gains, it would reduce the incentive for carriers to increase efficiency. Furthermore, if exogenous costs were included in the rate of productivity improvement, the carrier could gain a windfall profit without any substantial improvement in efficiency.

The FCC has specified cost changes that may be considered exogenous:[91]

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[89] *See generally Second Report and Order* at 6807.

[90] *Id.*

[91] *See* 47 C.F.R. § 61.45(d)(1).

1. The completion of the amortization of depreciation reserve deficiencies;

2. Changes in the Uniform System of Accounts requirements.

3. Changes in the Separations Manual.

4. Changes to the level of obligation associated with the Long Term Support Fund and the Transitional Support Fund described in 47 C.F.R. § 64.901.

5. The reallocation of investment from regulated to non-regulated activities pursuant to 47 C.F.R. § 64.901.

6. Specific tax law changes not affecting all companies or other such "extraordinary cost changes" approved by the Commission for exogenous treatment.

7. Retargeting the Price Cap Index to the level specified by the Commission for carriers whose base year earnings are below the level of the lower adjustment mark.

8. Inside wire amortizations.

9. The completion of amortization of equal access expenses.[92]

Each of these items may entail significant costs for a LEC, but these expenses would not directly affect a carrier's efficiency incentives because it has no control over the amount of the costs. Therefore, the agency better achieves its desired incentives by allowing the carrier to separate those costs that it can reduce by improving productivity from those that it cannot. The result is to permit efficiency gains to result in higher profits to the LEC, where such a reward might not occur if exogenous costs were not evaluated separately. Similarly, excluding

[92] General tax law changes, costs of converting to equal access, costs from changes in depreciation rates, and point of presence migration are all presumptively endogenous, however. *See Second Report and Order* at 6808-09.

exogenous costs precludes LECs from relying on phantom efficiency gains which have no impact on a LEC's actual operating efficiency.

F. A System of Baskets and Bands Restricted Price Caps to Prevent Cross-Subsidization.

The Commission also wished to give LECs some discretion to modify pricing to achieve additional efficiencies. On the one hand, a simple rule that gave LECs broad authority to make their own rates raised concerns that the companies would engage in predatory pricing against competitors, and subsidize this dumping by inflating rates in areas where no competition existed.[93] On the other hand, flexible pricing was desirable, as it allowed "LECs to migrate their rates toward a set of prices that enhance[d] efficiency."[94] And the more freedom that LECs had to set their own prices in relation to the demand that existed for their services, the closer the resemblance to an unregulated market. Moreover, making the range of flexibility too narrow potentially would harm the LECs. The FCC set the productivity factor and Consumer Productivity Dividend based on certain assumptions about the amount of efficiency gains that the LECs could be expected to achieve in a year. If the LECs were hamstrung by pricing options that were not broad enough, they would have the worst of both worlds: declining prices based on predicted productivity gains that could not be achieved.

To satisfy these competing concerns, the FCC adopted the baskets and bands strategy. First, the many services offered by LECs were split into four distinct baskets, or groups. The

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[93] *Id.* at 6814.

[94] *Id.* at 6791.

initial four baskets were (1) common line services, (2) traffic sensitive services, (3) special access services, and (4) interexchange services.[95] (Later a fifth basket was added for video dialtone services,[96] followed by a sixth basket for marketing expenses.[97]) These baskets encompassed a variety of different services that a LEC could offer.

The price cap was applied to each overall group. Thus, the overall basket could not exceed the price cap. This reduced the risk that lower-priced services in competitive markets could be supported by higher prices in non-competitive segments, because it limited the extent to which prices for individual services could vary in relation to one another.[98]

The FCC then created "bands" of prices. Essentially, the band was an annual 5% margin above and a 5% margin below the actual "price cap."[99] The Commission would presume tariffs that fell within the band were reasonable. The reason for the upper limit was to protect ratepayers from radical price hikes by the LECs.[100] Some commentators at the time of

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[95] *Id.* at 6811.

[96] See *Price Cap Performance Review for Local Exchange Carriers; Treatment of Video Dialtone Services under Price Cap Regulation,* 10 FCC Rcd 11098 (1995). The basket for video dialtone service has little continuing relevance today, because Congress eliminated video dialtone service in the 1996 Telecommunications Act. *See* 47 U.S.C. § 653; *see also Fourth Report and Order* at 16715.

[97] *See Access Charge Reform* (First Report and Order), 12 FCC Rcd 15982, 16122-23 (1997) ("*Access Charge Order*").

[98] *Second Report and Order* at 6813.

[99] *Id.*

[100] *Id.* at 6813-14.

implementation argued that the establishment of a 5% upper band would have the practical effect of raising prices by that amount, as all LECs would set their prices at the maximum amount allowed by law.[101] The FCC rejected this reasoning, saying that in its experience, access charges had been coming down, and it saw no reason to believe that LECs would automatically raise rates as high as possible every year.[102]

On the other side, there was also disagreement about implementing a band below the price cap. Some LECs argued that no good reason existed to impose a floor on the prices that they could charge.[103] This position, which relied on the logic that lower prices necessarily must be good for ratepayers, was also rejected by the Commission. The FCC noted that allowing LECs to set prices as low as they chose would increase the danger of predatory pricing, as the LECs might try to undercut newly developing competition.[104] Thus, the band did not completely foreclose the LECs from setting lower prices, but it did require that if they wished to go below the allowed (5%) amount they must show the charged price was above the cost of providing the service.[105]

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[101] *Id.* at 6813 *citing* AT&T Comments at 27; MCI Reply at 10 n.21; Ad Hoc Comments at 25-26; Clearinghouse Comments at 13-14; NARUC Reply at 6-7; Missouri PSC Comments at 8-9.

[102] *Id.* at 6813-14.

[103] *Id.* at 6814, *citing* Pactel Supplemental Comments at 67-68; Ameritech Supplemental Comments at 30; US West Supplemental Comments at 65; GTOC Supplemental Comments at 24-25; Ad Hoc Supplemental Comments at 39-41.

[104] *Id.*

[105] *Id.*

The basket and band policy thus sought to glean the benefits of truly variable prices, such as increased efficiency and more innovative service, while preventing some of the perceived harms that would come from a completely deregulated approach. However, the policy as adopted did receive significant criticism from the LECs, who argued that the FCC had not set the balance properly by making the range of pricing too narrow.[106] This jeopardized the ability of the LECs to meet the efficiency targets that the FCC had set out. Because under the new regime, the LECs' profitability was defined by whether they met (or exceeded) these targets, it was a serious concern.

III. Subsequent Modifications to the Original Price Cap Scheme.

As originally envisioned, price caps were to introduce market forces into telephone pricing. In practice, however, the FCC proved less willing to leave LECs and consumers to market disciplines and incentives. This section describes various ways in which the original price cap regime was modified — often in ways that seemed to regress to the discredited principles of rate of return regulation.

A. The FCC Repeatedly Increased the Productivity Factor and Retroactively Adjusted Earlier Period Indexes to Account for the Higher Productivity Factors.

Initially, the FCC's data led it to conclude that the Factor should be 3.3% because that figure best reflected the agency's empirical studies about how much LEC productivity increases

[106] *Id.*

had surpassed those of the general economy.[107] The agency, however, modified that initial conclusion. In 1995, the FCC increased the basic X-Factor from 3.3% to 4.0%.[108] Most recently, the Commission voted in May 1997 to require a new X-Factor of 6.5%.[109]

The agency's explanation for raising the X-Factor to 6.5% was that it had adopted a new method for calculating the productivity factor. Rather than simply relying on historic data, the FCC switched to a consideration of what it called "total factor productivity" (TFP), which examined the ratio of total output to total input.[110] Output and input are measured by indices, with the output index representing the quantities of goods and services produced and the input index measuring the quantities of capital, labor, and materials used in production.[111] The goal of a TFP analysis is to "isolate the real change in productivity."[112]

In addition to raising the X-Factor to 6.5%, the FCC in 1997 retroactively adjusted earlier period indexes to account for the higher productivity factors. The Commission required each LEC to adjust its price cap index effective July 1, 1997 to the levels for the 1997-1998 tariff year

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[107] *Second Report and Order* at 6798.

[108] *First Report and Order* at 9053-54. As with the initial system, the Commission again allowed carriers to choose among various X - Factors – 4.0%, 4.7%, or 5.3% -- each corresponding to a different sharing obligation. *Id.* at 9055-56.

[109] *Fourth Report and Order* at 16652.

[110] *Id.* at 16648.

[111] *Id.*

[112] *Id.* at 16657. Under the old regime, changes in prices had a more pronounced impact on the X-factor. TFP attempted to limit this effect.

that would have been in effect had the agency adopted the 6.5% X-Factor in time for the LECs' 1996 annual filings.[113] The reason for this retroactive change was that the FCC believed the interim productivity factor of 4.0% adopted in 1995 "understate[d] LEC industry productivity growth."[114] Consequently, the agency concluded "that allowing all of the past two years of understated productivity to become permanently ingrained in LEC [price cap indices] would not strike the proper balance between stockholder and ratepayer interests."[115] The Commission thought carriers had notice that the 4.0% productivity factor was only interim, and thus the FCC believed it was reasonable to adjust the price cap retroactively to apply to the 1997-98 tariff year.[116]

Carriers on both sides challenged the Commission's conclusion in the Court of Appeals. Long distance carriers argued that the X-factor had been set too low. Local carriers challenged the order as a result-driven political deal with the long distance carriers. Media reports at the time of the order indicated that the Commission had reached a deal with AT&T under which AT&T would pass along certain access charge reductions to consumers. In exchange, the Commission would agree to cut access charges by $1.7 billion.[117] The local carriers argued that

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[113] *Id.* at 16714.

[114] *Id.*

[115] *Id.*

[116] *Id.*

[117] Ola Kinnander, *AT&T Puts Pressure on FCC to Reduce Access Charges More Than Had Been Expected*, COMMUNICATIONS TODAY, May 6, 1997, at 1; John M. Broder, *AT&T to Lower*
(Continued...)

this "deal" led the Commission to manipulate the X-factor data and apply it retroactively in order to reach the preordained reduction level.[118] The Commission responded that the Price Cap decision represented reasoned decision-making based on the totality of a highly complex record.

B. The FCC Eliminated the Multiple Productivity Factor Choices.

Under the initial Price Cap Order in 1990, the agency had allowed the carriers to choose between different X-Factors: the standard one of 3.3% or a higher factor of 4.3%. Choosing a higher X-Factor demanded greater efficiency gains but also a greater potential for profit.[119]

In 1997, however, the FCC decided that a higher X-Factor of 6.5% would be the only one permitted.[120] Carriers could no longer choose among different rates. The Commission's rationale was that: (i) most LECs had chosen the highest X-Factor, (ii) the low-end adjustment mechanism was sufficient to address any heterogeneity existing among price cap LECs, and (iii) permitting multiple X-Factors would attach differential sharing obligations that might undermine economic efficiency.[121] The FCC also thought that requiring a single X-Factor would simplify

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Long-Distance Rates, INT'L HERALD TRIBUNE, May 5, 1997, at 15.

[118] Initial Brief for Local Exchange Carrier Petitioners at 7-13, *United States Telephone Association, et al. v. Federal Communications Commission, et al.*, No. 97-1469 (D.C. Cir.).

[119] *See supra* at II(A).

[120] *Fourth Report and Order* at 16703-05.

[121] *Id.* at 16703-04.

the FCC rules and prevent LECs from "gaming the system" by increasing profits without improving productivity growth by shifting between different X-Factor options.[122]

C. The FCC Refused To Eliminate the Consumer Productivity Dividend.

The consumer productivity dividend, as originally conceived, was to compensate for anticipated gains in LEC productivity after the initial transition from rate-of-return regulation to price caps.[123] Consequently, many observers thought that the CPD would disappear once the transition took place.[124]

Instead, the FCC opted to retain the consumer productivity dividend. It disagreed that "the passage of time by itself has eliminated the need for a CPD. The CPD remains necessary to require LECs to transfer some portion to their unit cost reductions to their access customers. . . . The passage of time has not altered the need to strike this balance between ratepayer and shareholder interests."[125]

This explanation seemed cryptic if not curt. Perhaps thinking a more detailed justification necessary, FCC Commissioner Rachelle B. Chong issued a separate statement addressing this issue. Commissioner Chong said:

> I recognize that some have argued that the CPD was initially adopted as a way to flow through the first benefits of the price cap

[122] *Id.* at 16704.

[123] *See supra* section II(B).

[124] *See Fourth Report and Order* at 16691.

[125] *Id.*

> plan to access charge customers, and that it may be time to bid the CPD a fond farewell. Given the current state of competition in most price cap LEC markets, we have decided to continue use of the CPD as a way to ensure that productivity gains realized by the LEC will be shared between ratepayers and shareholders. In the future, however, a Commission may decide that competition has progressed to the stage where a CPD mechanism could be safely discarded because market forces will provide consumers with the benefit of the LEC's productivity.[126]

Yet Commissioner Chong's statement was more an acknowledgment of the problem than it was a justification. Few people would dispute that the FCC still must balance the interests of ratepayers and shareholders. But what was remarkable about the agency's explanation is how little it explained. The justification for the CPD's existence — the added productivity gains from the initial transfer to a price cap system — occurred almost eight years ago. Yet the FCC's official report never explained why "the passage of time" would not remove the need for the CPD. Logically, it would, and the agency's public statement gave no explanation about why this logic should not apply. Perhaps the Commission feared the abolition of sharing might create an unjust windfall to the LECs, but the higher X-Factor, crafted through a TFP analysis to gain the most accurate result, was designed to prevent that.

The agency's stated rationale for preserving the CPD was to ensure that efficiency savings flowed through to consumers, but the FCC had raised the X-Factor to do exactly that. The real question — left unanswered in the record — was why the newly increased and allegedly more accurate X-Factor did not obviate the CPD.

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[126] "Separate Statement of Commissioner Rachelle B. Chong," *Fourth Report and Order* at 16800.

If the agency's objective was to pass efficiency savings along to consumers, raising the X-Factor or even retaining the sharing program would have accomplished that goal with a closer connection to the agency's stated policy goal and on a rational, reasoned basis. There was little need to muddy this already-complex area of law by extending the CPD's natural lifetime without credible explanation.[127]

D. The FCC Reduced Eligible Exogenous Costs.

In 1995, the FCC modified the original exogenous cost rules to deny exogenous treatment for accounting rule changes that do not affect a carrier's discounted cash flow.[128] The agency instituted an "economic cost standard" intended to limit exogenous cost treatment of cost changes resulting from changes in USOA requirements. Exogenous cost treatment was limited to cost changes caused by administrative, legislative, or judicial requirements beyond the control of the carriers that are not reflected in the Gross Domestic Product Price Index.[129] The agency believed that "[b]y narrowing this exception, efficiency incentives should improve."[130] The

[127] On appeal, the agency argued for the first time that the extension of the CPD was needed due to the elimination of sharing. Without sharing, the Commission argued, carriers would have greater profit incentive to be efficient, making past productivity experiences with sharing consistently lower than could now be expected. The seeming post-hoc explanation for retention of the CPD led to charges by local carriers that the adjustment was retained as part of a political deal to lower access charges by a specific pre-determined amount. *See generally* Initial Brief for Federal Communication Commission at 37-40, *United States Telephone Association, et al. v. Federal Communications Commission, et al.*, No. 97-1469 (D.C. Cir.).

[128] *First Report and Order* at 9090-93.

[129] *Id.* at 9090.

[130] *Id.*

concern was to avoid double counting.[131] Because the price cap index already was adjusted for inflation, the agency did not wish to include the same cost increase under both inflation and under the exogenous cost category. To do so would grant the LEC additional profits without requiring any greater increases in efficiency.

In framing the new rule, the Commission focused on a LEC's discounted cash flows. According to the FCC, a change in accounting rules that affects a carrier's discounted cash flow represents a true change in economic costs and opportunity. Thus, it should merit classification as an exogenous cost. On the other hand, a change in accounting rules that does not affect discounted cash flow or opportunity costs should not be eligible for exogenous treatment.[132]

E. The FCC Eliminated Sharing but Not the Low-End Adjustment.

At the same time it was tightening the eligibility for exogenous costs, the FCC in 1995 questioned whether it should continue to include a sharing mechanism in its price cap formula: "Based on our experience over the initial four years of LEC price cap regulation and the extensive record developed in this proceeding, we conclude that the sharing mechanism is not essential to ensuring that LEC rates under price cap regulation remain just and reasonable."[133]

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[131] *Id.*

[132] *Id.* at 9090-91.

[133] *Id.* at 8969.

Although the FCC did not eliminate sharing at that time, it noted that a sufficiently high X-Factor could fulfill the same purpose of benefiting consumers.[134]

In 1997, the FCC formally removed the sharing requirement "as part of our overall strategy to devise a more deregulatory and efficiency-enhancing regulatory framework."[135] The agency believed that eliminating sharing removed a "major vestige" of rate-of-return regulation and in the future would facilitate more deregulation as local markets opened to competition.

The Commission thought that the sharing system "severely blunt[ed] the efficiency incentives of price cap regulation by reducing the rewards of LEC efforts and decisions."[136] If the LEC would not gain the profits from a remarkable increase in productivity, it had far less incentive to achieve tremendous productivity improvements. If a higher X-Factor created further incentives, however, the LECs would receive the marginal profits and thus had a strong incentive to continue to improve productivity. At the same time, consumers would benefit from the lower costs LECs charged long-distance providers for using the local network to complete an interstate telephone call.

The FCC, however, did not remove the low-end adjustment.[137] It feared that in its absence, the higher X-Factor might force the LECs to charge unreasonably low rates.[138] The

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[134] *Id.*

[135] *Fourth Report and Order* at 16699.

[136] *Id.* at 16700.

[137] *Id.* at 16649 ("To guard against our new X-Factor requiring individual LECs to charge unreasonably low rates, we will retain our current low-end adjustment mechanism.").

profit cap on productivity improvements disappeared; the profit floor did not. Of course, the carriers still faced a much higher X-Factor and the retention of the CPD, but retention of the low-end adjustment did serve to limit any potential damage.

F. The FCC Modified New Services Pricing and Procedural Rules.

"New services" are those that "add to the range of options already available to consumers."[139] They may, but need not, include a new technology or functional capability.[140] New services are not included under the price cap indices until the first annual price cap tariff filings after the completion of the base year in which the new service becomes effective.[141] LECs may charge a "reasonable" level of the overhead costs of a new service.[142] New services subject to LEC price caps must disclose to the FCC with at least 45 days' notice; they must also be accompanied by a detailed cost report showing that "it has used a consistent costing methodology for direct costs 'for all related services.'"[143]

(...Continued)
[138] *Id.*

[139] *Second Report and Order* at 6824.

[140] *Id.*

[141] *Id.*

[142] *Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture Policy and Rules Concerning Rates for Dominant Carriers*, 6 FCC Rcd 4524, 4531 (1991).

[143] *First Report and Order* at 9133.

In 1995, the Commission gave the LECs greater flexibility to lower prices within service category bands.[144] The lower pricing bands were expanded by 5% to allow the LECs additional downward pricing flexibility.[145] Some critics had objected that this might increase the risk of predation, create unreasonable discrimination by departing from fully distributed cost pricing, and allow the LECs to abuse the pricing flexibility to foreclose competitive entry.[146] The agency did not find these concerns decisive, and it concluded "we believe that any increased risk of such conduct is outweighed by the benefits that consumers will receive from lower prices."[147] But the FCC promised to continue to review new services tariff filings for possible discrimination.[148]

G. The FCC Began to View Price Caps Not as a Permanent Replacement for Rate-of-Return Regulation, But Rather as a Transition to Local Exchange Competition.

In 1995, the FCC undertook a "comprehensive review" of the LEC price caps, focusing specifically on whether the original policy goals should be modified.[149] The agency reaffirmed its conviction about the superiority of competition to regulation and its rationale for price caps: "we adopted the current price cap system which, we believed, was not only superior to rate-of-return regulation, but could also act as a transitional system as LEC regulated services became

[144] *Id.* at 8972-73.

[145] *Id.*

[146] *Id.* at 9139-40.

[147] *Id.* at 9140.

[148] *Id.* at 9143.

[149] *Id.* at 8966.

subject to greater competition."[150] The goal was not merely to replace rate-of-return regulation but to "replicate the competitive outcome" present in the marketplace.[151] In that light, the Commission continues to believe price caps are a transitional device meant to allow the FCC to gradually reduce regulation as the LECs move from a fully regulated service to a competitive local exchange marketplace even if many of the implementation features of the FCC's regulatory regime suggest that the FCC views price caps as a more permanent fixture.[152]

In sum, the changes to the initial 1990 price cap order were substantial: The X-Factor was raised significantly, the CPD was retained, sharing was eliminated, and multiple productivity factors were abolished.

IV. Experience With Implementation of Price Caps at the State Level.

Changes in LEC regulation are not limited to the federal government. In fact, some state legislatures and public utilities commissions were ahead of the FCC in adopting alternative regulatory plans for telecommunications companies.[153] The Commission noted that as of 1990, California, Illinois, Kansas, Michigan, New York, and Wisconsin had implemented variants of

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[150] *Id.* at 8989.

[151] *Id.* at 9002.

[152] Frank & Lazarus, *supra* note 68, at 27.

[153] *Second Report and Order* at 6792. Fink, *supra* note 53, at 204.

the price cap scheme.[154] Since then, other states, such as Alabama, Maine, North Carolina, Pennsylvania, South Carolina, Vermont and Virginia, have followed this lead.[155]

The price cap systems adopted at the state level are broadly similar to the FCC's regime. The division of services into baskets, for example, is an almost universal reaction to the problem posed by cross-subsidization. It is also common to find a productivity factor (an "X-Factor") to take into account the declining cost nature of the telecommunications industry. However, despite these general similarities, many of the state plans differ significantly from the FCC's structure. For example, several states apply different price caps to different service baskets. The state productivity factors are frequently much lower than that imposed by the FCC. And the use of a consumer productivity dividend ("CPD," or "stretch factor") is quite rare at the state level; in fact, California, one of the few states that initially adopted such a factor, recently eliminated it. The extensive state experiences with price caps should inform any analysis of possible price cap modifications. More specifically, states like California, which have a long history with price caps in a large market, may offer significant guidance for future FCC reforms.

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[154] *Id.*

[155] *South Central Bell Telephone Company*, 164 P.U.R. 4th 324 (Ala. P.S.C. 1995); *New England Telephone and Telegraph d/b/a NYNEX*, 162 P.U.R. 4th 38 (Me. P.U.C. 1995); *Bell South Telecommunications*, 168 P.U.R. 4th 438 (N.C. U.C. 1996); *Implementation of Chapter 30 of the Public Utility Code*, No. M-00930483, 1995 WL 809963 (Pa. P.U.C. Apr. 13, 1995); *Bell South for Alternative Regulation*, 169 P.U.R. 4th 144 (S.C. P.S.C. 1996); *New England Telephone and Telegraph*, 157 P.U.R. 4th 112 (Vt. P.S.B. 1994); *Telephone Regulatory Methods*, 157 P.U.R. 4th 465 (Va. S.C.C. 1994).

A. Some States Have Implemented Different Price Caps for Different Service Baskets.

When the FCC adopted an incentive-based system to regulate the largest LECs in 1990, it noted: "The productivity offset we have defined was selected on the basis of total company performance, not the performance of individual 'baskets' of services or on a service specific basis."[156] Thus, the FCC applied the same productivity offset and price cap structure to all of the services offered by the LECs, regardless of their basket grouping. Some states have rejected this universal, one-size-fits-all approach and have instead created different price caps for different service baskets, generally easing price cap restrictions in areas where competition has either already developed or is in the process of doing so.[157]

In South Carolina, for instance, the Public Service Commission approved a plan that divided the LEC's services into three baskets: Basic, Interconnection, and Non-Basic.[158] Both the Basic and Interconnection service baskets are governed by a three-year rate freeze, after which they may be increased by the amount of inflation (determined by the GDP-PI), less a 2.1% productivity factor.[159] However, the price of services in the Non-Basic basket, which includes

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[156] *Second Report and Order* at 6892.

[157] *Bell Atlantic-Washington, D.C.*, 173 P.U.R. 4th 55 (D.C. P.S.C. 1996); *Bell South Telecommunications*, 168 P.U.R. 4th at 438; *South Central Bell Telephone Company*, 164 P.U.R. 4th at 324; *Bell South*, 169 P.U.R. 4th at 144; *Alternative Forms of Regulating Telephone Companies*, 174 P.U.R. 4th 120 (Md. P.S.C. 1996) ("*Bell Atlantic-Maryland*").

[158] *Bell South*, 169 P.U.R. 4th at 144.

[159] There is also a 5% band similar to the one used by the FCC, described in Section II(F), *supra*.

services that are deemed to face competition from other sources, may be raised by as much as 20% in any given twelve-month period, after the expiration of a five-year rate freeze.

Alabama has adopted a very similar structure, which also uses three baskets called Basic, Interconnection, and Non-Basic.[160] The Basic category, which includes all of the services necessary for either a business or residential consumer to make a local call, is capped for five years, after which South Central Bell and any other LEC adopting this regulatory plan can increase prices by the GDP-PI minus a set productivity factor of 3% for South Central Bell and 1% for non-South Central Bell LECs.[161] The Commission further ruled that intrastate Interconnection services would be tied to the interstate rates set by the FCC, reduced by 2.5 cents per minute (phased in over a three year period).[162] The price of Non-Basic services, after a freeze of twelve months, may be raised by as much as 10% per year.[163]

In North Carolina, the Utilities Commission split LECs' services into five, rather than three, different baskets: Basic, Non-Basic 1, Non-Basic 2, Interconnection, and Toll Switched Access.[164] The Commission applied a cap of GDP-PI minus a 2% productivity factor to the Basic basket, a cap of GDP-PI minus 3% to the Non-Basic 1 and Interconnection services, a total

[160] *South Central Bell Telephone Company*, 164 P.U.R. 4th at 324.

[161] *Id.* at 333.

[162] *Id.* at 335.

[163] *Id.* at 334-35.

[164] *Bell South Telecommunications*, 168 P.U.R. 4th at 438.

freeze on prices in the Toll Switched Access group, and left the prices in the Non-Basic 2 group unregulated, allowing the LECs total pricing flexibility in that area.[165]

Finally, in Washington, D.C., the Public Service Commission has adopted a three-basket approach, dividing LEC services into Basic, Discretionary, and Competitive.[166] The Basic basket is restricted to an increase of GDP-PI minus 3%, while prices for Discretionary services may be increased up to 15% per year.[167] Services defined as "Competitive" are not subject to any pricing restrictions; prices in that category are entirely subject to the discretion of the LEC.[168] As with the other states, the D.C. Commission decided that the presence of competition in the market for certain services justified the removal of price regulation, as the free market would be able to adequately control the prices of these services.

It should be pointed out that these decisions all post-date the initial FCC implementation of price caps in 1990 by at least five years, and that by 1995, it was far more apparent that competition would start to become a feature of the LEC landscape than it had seemed in 1990. The FCC itself recognized this, by stating that the flexibility offered by price caps "gives the LECs the ability to adjust their prices to a limited extent in response to competitive entry."[169]

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[165] Non-Basic 2 includes Centrex, Billing and Collection services. Basic is defined as those services necessary to make a local call, and Non-Basic 1 is the catch-all category. *Id.* at 471.

[166] *Bell Atlantic-Washington, D.C.*, 173 P.U.R. 4th at 55.

[167] *Id.*

[168] *Id.*

[169] *First Report and Order* at 8965-66.

There have, however, been two major overhauls to the FCC price cap system since it was first announced, in 1995 and 1997; the FCC elected during each not to pursue a course similar to the one adopted by the states.[170]

B. States Typically Set Much Lower Productivity Offsets than Those Used by the FCC.

The FCC began in 1990 by offering two different X-Factors, which brought with them different sharing requirements. These X-Factors were 2.8% and 3.8%, plus the addition of a 0.5% Consumer Productivity Dividend, which brought the total to 3.3% and 4.3%.[171] In 1995, the number of X-Factors was increased to three, ranging from 4% to 5.3%, and the FCC continued with a 0.5% Consumer Productivity Dividend, bringing the total offsets from 4.5% to 5.8%.[172] Last year, the FCC eliminated the multiple X-Factor, moving to a single, 6.0% figure, that yielded a total offset of 6.5% (when combined with the CPD).[173]

Despite the gradual increase in total productivity offset that the FCC has favored, most states use X-Factors much closer to the 2.8 percent figure initially used by the FCC as its lowest offset. States with X-Factors in this range include Kansas (3.0%), Pennsylvania (2.93 percent), North Carolina (2.0 percent), South Carolina (2.1 percent), and Alabama (3.0 percent); the

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[170] For a detailed discussion of the changes that the FCC made in 1995 and 1997, see Section III, *supra*.

[171] *Second Report and Order* at 6798.

[172] *First Report and Order* at 9085.

[173] *Fourth Report and Order* at 16697.

District of Columbia also uses a 3.0 percent offset.[174] Maryland ties its X-Factor to a three-year average of the Consumer Price Index, which recently has averaged approximately 3 percent.[175] Indeed, a survey of all states that have adopted productivity factors, cited by the Kansas State Corporation Commission, reveals that the national average is 2.6 percent.[176]

C. The Use of a Consumer Productivity Dividend, in Addition to the X-Factor, is Uncommon at the State Level.

While there is almost universal recognition among the states that an X-Factor is required to take into account the productivity differential between LECs and the rest of the economy, states use a consumer productivity dividend or "stretch" factor much less frequently. Illinois is an example of the rare case, using a 1% consumer productivity dividend which is added to the differential productivity growth measure (the "X-Factor").[177] However, unlike the FCC's X-Factor, which is 6%, Illinois' X-Factor is only 1.3%.[178] Many states, like California, have eliminated this stretch factor based on their analysis of the potential efficiency gains now available to carriers.

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[174] *Telecommunications Industry*, No. 190, 492-U, 94-GIMT-478-GIT, 1996 WL 938814 at *9 (Ks. S.C.C. Dec. 27, 1996); *Implementation of Chapter 30 of the Public Utility Code*, 1995 WL 809963; *Bell South Telecommunications*, 168 P.U.R. 4th at 438; *Bell South*, 169 P.U.R. 4th at 144; *South Central Bell Telephone Company*, 164 P.U.R. 4th at 324; *Bell Atlantic*, 173 P.U.R. 4th at 55; *Bell Atlantic-Maryland*, 174 P.U.R. 4th at 120.

[175] *Bell Atlantic-Maryland*, 174 P.U.R. 4th at 120.

[176] *Telecommunications Industry*, 1996 WL 938814 at *16.

[177] *Illinois Bell Telephone Company v. Illinois Commerce Commission*, 669 N.E. 2d 919, 927 (Ill. 1996).

For example, Kansas has decided that the inclusion of a stretch factor is not appropriate.[179] Dismissing the FCC's decision to include such a dividend as unpersuasive, the Kansas Corporation Commission found that a stretch factor would not produce any benefit: "The LECs have existing incentives to achieve the greatest possible efficiencies."[180] The Commission went on to set the X-Factor at 3%, which it felt was in line with the average of 2.6% used in other states.[181]

The Public Service Commission in Maryland made a similar decision in *Re Alternative Forms of Regulating Telephone Companies*.[182] There, the Commission adopted a rate regulation plan broadly similar to the one used by the FCC, including baskets, bands, and a productivity factor. The Commission declined, however, to impose an additional stretch factor, concluding that the Consumer Price Index served as a "[reasonable] proxy for expected future productivity gains," and was thus all that was necessary.[183]

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[178] *Id.*

[179] *Telecommunications Industry*, 1996 WL 938814.

[180] *Id.* at *16.

[181] *Id.*

[182] *Bell Atlantic Maryland*, 174 P.U.R. 4th at 120-62.

[183] *Id.* at 120.

The Pennsylvania Public Utility Commission "specifically reject[ed] the inclusion of a stretch factor" in LEC price cap regulation.[184] In addition to concluding that a stretch factor added nothing to a properly determined X-Factor, the Commission was concerned that inclusion of a stretch factor might actually damage the accuracy of the regulation.[185] "[W]e are faced with both the uncertainty of the stretch factor theory and the relative imprecision of the estimated factor values available to us in this proceeding."[186] The Commission went on to conclude that an X-Factor of 2.8% was appropriate.[187]

Finally, California, which adopted a consumer productivity dividend when it first went to alternative regulation, has recently eliminated this stretch factor as a component of calculating the X-Factor.[188] The California Public Utilities Commission, in fact, engaged in a sweeping overhaul of its price cap system, which the FCC had once cited as being the "most similar" to the FCC's own regulations.[189] This reform not only eliminated the 0.5% stretch factor, it also froze the application of the price cap formula, which effectively equates the X-Factor to the GDP-PI.[190]

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[184] *Implementation of Chapter 30 of the Public Utility Code;* 1995 WL 809963 at *17 *citing* Bell June 1994 Order, slip op. at 76.

[185] *Id.*

[186] *Id.*

[187] *Id.*

[188] *Incentive-Based Regulatory Framework for Local Exchange Carriers*, 167 P.U.R. 4th 1 (Ca. P.U.C. 1995).

[189] *Second Report and Order* at 6792.

[190] *Incentive-Based Regulatory Framework for Local Exchange Carriers*, 167 P.U.R. 4th at 1.

This reduced the X-Factor from 5% to roughly 3%.[191] The California Commission concluded that the LECs had "achieved all of the easy gains by becoming highly efficient," and that while additional gains in efficiency were certainly possible, it was "unrealistic to believe that [LECs] can continue to realize additional efficiency gains at current levels."[192] Because of increased competition and the fact that "simple productivity gains realized in the initial years of price cap regulation ha[d] come to an end," the use of a stretch factor was "no longer appropriate public policy."[193] The Commission was persuaded that the declining revenues shown by Pacific Bell were caused in part by an overly onerous total obligation to reduce rates, which was prompted by an overly high X-Factor combined with the consumer productivity dividend.[194]

Thus, while solid consensus does not exist on the use of consumer productivity dividends among the states, several states have concluded for similar reasons that such a "stretch" factor is unnecessary if the productivity differential is properly determined. Moreover, a number of states have also determined that the inclusion of a stretch factor can do more harm than good, by making the total obligation of LECs more arbitrary than it could otherwise be.

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[191] *Id.* at 1-6.

[192] *Id.* at 17.

[193] *Id.* at 18-19.

[194] *Id.* at 25.

V. Evaluation.

As often happens, the difference between theory and practice does not become apparent except through years of experience. After eight years, all parties should have witnessed enough results to evaluate whether the theory of price caps was successfully implemented in practice, and whether jettisoning rate-of-return regulation was a wise decision.

Massive criticism has been leveled at the FCC over the implementation of price caps from both LECs and access customers. LECs, on the one hand, although preferring price caps to rate-of-return, would have the FCC make the entire scheme more flexible.[195] These LECs are not lobbying for access price increases, per se. Rather, they argue that they should be given the flexibility to shape their offerings in response to customer needs and competitive offerings.[196] Interexchange Carriers, on the other hard, would have the FCC make the scheme more rigid.[197] In fact they often make arguments that appear more aimed at repealing the entire system than at reforming it.[198]

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[195] *Fourth Report and Order* at 16705.

[196] *Id.* at 16707-08; *see also First Report and Order* at 8992-93.

[197] *See, e.g., Fourth Report and Order* at 16655-56, 16660; *Access Charge Order* at 16258-59.

[198] IXC arguments that access charges be prescribed based on "total service long run incremental costs" (TSLRIC) is nothing more than a demand that access rates be set in accordance with rate-of-return principles, thereby eliminating the last eight years' impact of incentive-based prices. *See* Comments of MCI WorldCom, Inc. at 22-27 (urging the FCC to base access charges on "forward-looking economic costs"), CC Docket Nos. 96-262, 94-1, RM-9210 (proceeding *Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Consumer Federation of America*) (filed Oct. 26, 1998); *cf. Access Charge Order* at 16109, 16259 (rejecting IXC requests that costs be prescribed according to TSLRIC).

All parties have argued that the Commission has often been slow to implement changes to price caps that reflect market and regulatory changes. The agency has dribbled these changes out over years thus exacerbating regulatory uncertainty and undermining the very goals they hope to achieve. For example, by the time of its four year review in 1995, the FCC was already moving in the direction of adopting a Total Factor Productivity measure for the X-Factor. The Commission was also considering the elimination of sharing. The four-year review contained requests for comments on both of these topics; the changes were finally implemented in 1997. In adopting price caps four years before, the Commission had been careful to develop a price cap system that could serve as a permanent regulatory replacement for rate-of-return. By the time of the review, the FCC had begun to speak of the price cap regime as affording the flexibility necessary for LECs to make the transition from being regulated utilities to competitive telecommunications service providers.

Who's right? Sifting through the rhetoric, the implementation of price caps at the federal level has had both its plusses and minuses. With the clear majority of states following the FCC's lead by moving to price caps for local services, the regulatory community obviously views price cap theory as conceptually appealing. Most of these policymakers appear to conclude that the positives outweigh the negatives. In fact, as described below, with some significant modifications to bring the program back in line with its underlying principles, these minuses would be even less problematic than they are at present.

A. The FCC's Price Cap Regulations Generated Substantial Benefits.

1. The Elimination of Sharing Bolstered the Efficiency-Producing Impact of Price Cap Regulation.

The sharing concept has often been referred to by the FCC as a "backstop" mechanism to ensure that ratepayers were not being overcharged because the FCC failed to accurately set the X-Factor.[199] In other words, it was thought to protect against an X-Factor that was set too low, and thus return "excess profits" to ratepayers to "correct" for this potential error.[200] Obviously, the concept has a clear rate-of-return flavor, where customers are given "refunds" of "excess earnings," except that with sharing, carriers "share" with ratepayers the profits that exceeded the "sharing zones."[201]

Since the theory behind price caps is to encourage carriers to become more efficient by allowing them to keep earnings that exceed the traditional rate of return by increasing output or reducing costs, the idea of requiring LECs to give back to ratepayers some of those "rewards" for becoming more efficient must have a dampening affect on price caps' efficiency motivation. Although there is some question about how precisely a company can gauge its efficiency improvements, one might expect that, when sharing is eliminated completely, steps to improve

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[199] *Fourth Report and Order* at 16702-03.

[200] *See supra* section II(C).

[201] In fact, the FCC itself has actually referred to sharing as a rate-of-return like mechanism. *First Report and Order* at 9045-46.

efficiency can proceed full steam ahead with confidence that those steps will be fully rewarded.[202]

IXCs, of course, have criticized the elimination of sharing, claiming that this mechanism is still necessary, in part because they believe the FCC has not set the productivity factor high enough.[203] These parties never appear to directly contest the premise that sharing has a dampening impact on efficiency.[204] Eliminating sharing also enables the FCC to jettison some regulatory requirements that are relics of the rate-of-return era retained solely because sharing requires a detailed examination of earnings. For instance, the FCC continues to be concerned about misassignment of costs, even though cost assignments have no impact in a price cap environment.[205] Eliminating such relics of the rate-of-return regime would reduce carrier costs and free up regulatory staff to concentrate on other issues.[206] Finally, sharing was believed

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[202] Several carriers had already elected the option of not sharing even prior to its elimination.

[203] *See* AT&T's Petition for Limited Reconsideration or, In The Alternative, Clarification, CC Docket 94-1, filed May 19, 1995, at 7; Ad Hoc Telecommunications Users Committee's Petition for Expedited Partial Reconsideration, CC Docket 94-1, filed May 19, 1995, at 5.

[204] AT&T has argued that a system of multiple X-Factors coupled with a sharing requirement would be, overall, more efficient economically than a single X-Factor with no sharing, because it would allow LECs to select X-Factors that were closer to those appropriate for their individual circumstances. However, even AT&T acknowledges that, all other things being equal, sharing reduces a LEC's incentives to become more efficient. *See* Comments of AT&T, CC Docket 94-1, filed Jan. 11, 1996, at 36.

[205] *See In the Matter of the Commission's Rules to Establish Competitive Service Safeguards for Local Exchange Carrier Provision of Commercial Mobile Services*, 11 FCC Rcd 16639, 16684-99 (1996).

[206] *See* Position Paper of Arthur Andersen LLP, *Accounting Simplification in the*

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necessary to prevent any gross underestimations of the X-factor from creating excessive earning. Such a buffer is less needed because the FCC is now convinced that the X-Factor is set at the right level.[207]

2. Price Caps Have Led to Substantial Rate Decreases That Benefited Long Distance Carriers.

Access prices for price cap carriers have declined by over 45% percent during the last eight years, arguably price caps' most significant achievement.[208] Most of these declines can be attributed to the consistent downward pressure of the X-Factor. The rest is due to a mixture of exogenous cost adjustments and the sharing mechanism. The new 6.5 percent X-Factor is expected to decrease rates by over $ 1.7 billion a year.[209]

IXCs have claimed that access charges should have declined even faster.[210] However, the real deterrent to attaining realistic access pricing has been the continued existence of persistent subsidies in those prices.[211] Furthermore, rate of return regulation could do no better at

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Telecommunications Industry (ex parte), at 11, 17-18 (filed July 15, 1998).

[207] *See Fourth Report and Order* at 16700.

[208] INDUSTRY ANALYSIS DIVISION, FEDERAL COMMUNICATIONS COMMISSION, TRENDS IN TELEPHONE SERVICE 4 (July 1998).

[209] Initial Brief for Local Exchange Carrier Petitioners at 6, *United States Telephone Ass'n, et al. v. Federal Communications Commission, et al.*, No. 97-1469 (D.C. Cir.).

[210] *See, e.g., Fourth Report and Order* at 16759-60.

[211] Even the FCC has recognized that they have not yet wrung all subsidies out of access pricing, even though Section 254 of the Communications Act required them to do so. *See Access Charge*
(Continued...)

eliminating these subsidies and certainly could not have been expected to decrease rates faster than did price caps. Therefore, reform of the lingering subsidies in access pricing and realistic universal service funding mechanisms are the real solution to these IXC concerns.

3. Price Cap Regulation Has Simplified the Documentation That Must Be Filed with, and Streamlined the Evaluation of, Price Changes.

One of the corollary benefits of price cap regulation is that it has substantially eliminated much of the paperwork associated with rate-of-return regulation. Because price cap regulation focuses only on the movement of prices, a detailed showing of costs is no longer necessary. Therefore, the only support material required is a demonstration of how the price movement is within the appropriate service category band and whether aggregate price changes within a basket are below the price cap index. This has reduced paperwork for individual rate filings.

Along with the reduced paperwork comes a streamlined review of such changes. It is obviously easier for the regulator to confirm that price movements are within band and below cap than a detailed examination of cost support materials entails. This will have even more of an impact on the state level, where full trial-type hearings have often been conducted to evaluate rate-of-return showings.

Although there has been a significant upsurge in investigations under the price cap regime from the rate-of-return regime, this seems to be the product of two more recent

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Order at 15995-96; *aff'd Southwestern Bell Telephone Co., et al., v. Federal Communications Commission, et al.*, 153 F.3d 523 (8th Cir. 1998).

phenomena, rather than as a result of price caps. First, the Commission has instituted an unprecedented number of regulatory changes in the access pricing context over the last eight years, much of which surrounds the promotion of competition.[212] Second, the Commission has become a more aggressive regulator in the last few years supported by more sophisticated tools to conduct rate investigations.[213] These same two factors appeared to be the cause of increased investigative activity even during the latter half of the 1980s, when rate-of-return regulation was still in vogue.[214]

B. The FCC's Implementation of Price Caps Suffered from Significant Shortcomings.

1. Politicizing Price Caps Has Undermined the Consumer Benefits That Can Be Achieved Through Price Caps.

The strength of any economic incentive regulation is that it lends predictability to the marketplace. Price cap regulators, in their brief eight year existence, have seemingly ignored this

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[212] *See, e.g., Expanded Interconnection with Local Telephone Company Facilities* (Memorandum Opinion and Order), 9 FCC Rcd 5154 (1994); *Transport Rate Structure and Pricing* (Report and Order and Further Notice of Proposed Rulemaking), 7 FCC Rcd 7006 (1992).

[213] The FCC's use of computerized auditing and statistical programs to evaluate carrier data makes an investigation possible since it can be done without traveling on site and poring through massive carrier records. *See, e.g., Proposed Modifications to ARMIS* (Public Notice), 1998 FCC Lexis 1233 (1998); *Local Exchange Carrier Line Information Database*, 8 FCC Rcd 7130 (1993); *800 Database Access Tariffs and the 800 Service Management System Tariff and Provision of 800 Services*, 1996 FCC Lexis 6022 (October 28, 1996).

[214] *See, e.g., In the Matter of Investigation of Access and Divestiture Related Tariffs* (Memorandum Opinion and Order), 1986 WL 292562 (1986); *In the Matter of Investigation of Special Access Tariffs of Local Exchange Carriers* (Memorandum Opinion and Order), 1986 WL 291617 (Phase I) (1986).

maxim. Indeed, the FCC has already revisited the price cap regulatory regime twice in its short history.[215] In each of these cases, the agency has not only altered the regulatory regime going forward, but has also reached back to "correct" perceived errors or oversights in the previous regime. Yet the core appeal of price cap regulation is that it provides an incentive for carriers to achieve higher efficiencies and thus higher profits by exceeding predefined efficiency goals.[216] By making these incentives uncertain, or altogether illusory, the Commission has undermined one of the core appeals of the price cap system.

The most extensive, and most damaging, alterations to the price cap regime have come in the form of repeated increases and retroactive changes in the X-Factor. As set out above, the original 1990 price cap indices were set at 3.3% (with sharing) and 4.3% (without sharing obligations). These indices remained in effect until 1995 when the Commission issued its Price Cap Performance Review. In the review, the Commission not only scrapped the existing indices, but reached back to apply those indices to the 1990-1994 period. First the Commission instituted a prospective three-level price cap regime with X-Factors of 4.0% (with sharing), 4.7% (with reduced sharing obligations), and 5.3% (with no sharing).[217] Second, the Commission

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[215] *See First Report and Order* at 9050; *see also Fourth Report and Order*.

[216] Indeed, even the Commission, at least publicly, has embraced the notion that individual carriers are entitled to excess profits if they achieve exceptional efficiency gains. In eliminating sharing, the Commission has noted that "[a] firm that is more efficient than its competitors in a competitive market has the option of not lowering its price and reaping higher margins on the units it sells at the prevailing market price," and that continuing "[s]haring would eliminate such an option." *Fourth Report and Order* at 16702.

[217] *See First Report and Order* at 9050.

determined that those carriers that had selected the 3.3% X-Factor for any of the years 1990-1994 would be forced to "reinitialize" their rates for that year as if the carrier had been subject to a 4.0% X-Factor all along.[218] The retroactive application of these changes, of course, cannot affect LEC efficiency because the changes occurred after the fact. These unpredictable retroactive adjustments dampen efficiency incentives and upset business planning and expectations. By adjusting the X-factor, the FCC is also engaged in back-door rate of return regulation, a result the FCC said it was trying to avoid.

The 1997 Order furthered this disturbing trend by once again altering the prospective price cap index — this time by establishing a uniform 6.5% X-Factor for all carriers and eliminating the sharing requirement. The 1997 Order also reinitialized rates for all carriers for 1996 by imposing a 6.5% X-Factor, regardless of the carriers' initial X-Factor election.[219] In total, for the first six years of the price cap regime carriers were able to enjoy the long term benefits of their regulatory choices for exactly one year. These shifting regulatory sands meant that higher-than-expected productivity gains were greeted by regulators with higher X-Factors to take away these efficiency rewards — the exact rewards that were advertised to greet more efficient carriers as the core of the incentive-driven price cap regime.

The Commission has similarly disrupted expectations in the regulation of exogenous costs. For example, starting in 1992 companies were required to shift their accounting

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[218] *Id.* at 9069-73.

[219] *See Fourth Report and Order* at 16712-15.

procedures to account for post-employment benefits other than pensions on an accrual basis. Several companies adjusted their caps accordingly, but the Commission attempted to disallow the modifications. The D.C. Circuit reversed the Commission because the existing rules had permitted the adjustment.[220] In response, the Commission promulgated a new rule to preclude recovery of future, amortized installments of other post-employment benefit costs.[221] Here too the Commission has altered the rules repeatedly making carriers leery of any future decisions based on an unreliable regulatory regime.

Even the unscientific way in which the X-Factor has been established underscores the politicization of the X-Factor. Although some mathematical formula based on historic efficiency gains could be justified, the FCC has always adjusted these averages based on its "prediction" about future gains. For instance, in raising the X-factor to 6.5%, the FCC arbitrarily tossed out 1992 from the average that it was "anomalously low," without reasoning or evidence for that conclusion. The FCC failed to throw out anomalously high years and never explained why averaging results would not adequately correct for the low figures. Failure to straightforwardly deal with these numbers gives credence to the political manipulation charges. Given that prediction is an art rather than a science, charges of political manipulation would not be possible if the FCC had simply used historical trends and been done with it.[222]

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[220] *See Southwestern Bell Telephone Co. v. FCC*, 28 F.3d 165 (D.C. Cir. 1994).

[221] *See First Report and Order* at 9095-96.

[222] USTA proposed one such unmanipulable average -- a moving 5-year average that would change each year based on the previous five-year average. *See Fourth Report and Order* at

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2. Price Caps Should Be Structured to Increase the Role of the Marketplace When Competition is in Place.

There is little question that the Commission needs to quit tampering with the inner workings of price cap regulation; the agency must also, however, limit the reach of the overall price cap regime only to allowing the open markets it ultimately desires to function properly. Two areas illustrate this latter concern: inadequate pricing flexibility and inclusion of new services. Both of these elements have served to delay the transition to an open competitive market. As the Commission itself has observed, "[e]conomic logic holds that giving incumbent LECs increased pricing flexibility will permit them to respond to competitive entry, which will allow prices to move in a way that they would not have moved were the pricing restrictions maintained. This can lead to better operating markets and produce more efficient outcomes."[223] Yet the Commission has thus far failed to grant carriers these market-aiding reforms.

In its Notice of Proposed Rulemaking addressing price cap reform, the Commission seemed to be on the right track in considering regulatory alternatives that would have given LECs greater flexibility in pricing services while still reducing the overall price cap. More specifically, the Commission proposed elimination of four regulatory constraints that would have permitted greater flexibility in pricing upon a showing by the carrier of potential competition. The proposal included lifting: (1) the prohibition on geographic deaveraging; (2) the ban on

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[223] *See Access Charge Order* at 16097-98.

volume and term discounts for interstate access services; (3) the prohibition against contract tariffs and individual requests for proposals; and (4) various constraints on the ability of incumbent LECs to offer new, innovative access services.[224]

The Commission also proposed greater flexibility upon a showing that carriers faced actual competition. These reforms included (1) elimination of price cap service categories within baskets; (2) removal of the ban on differential pricing for access among different classes of customers; (3) an end to mandatory rate structure rules for transport and local switching; and (4) consolidation of the traffic-sensitive and trunking baskets.[225] These proposals languish without action.

The Commission has still not developed a plan that relies on marketplace forces to drive interstate access prices to levels that would be achieved through competition. The market-based approach was supposed to give carriers greater flexibility in setting rates as competition develops. Notably, however, the agency did not even propose to rely on market forces to set rates for all access services; those services not currently subject to competitive pressures will be subject to a regulatory "safeguard" to bring the related access rates to competitive levels. For those services subject to competitive pressures, the FCC intends to provide detailed rules for implementing this market-based approach in the near future. In the meantime, proposals have

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[224] *See Price Cap Performance Review for Local Exchange Carriers* (Notice of Proposed Rulemaking, Third Report and Order and Notice of Inquiry), 11 FCC Rcd 21354, 21428-29 (1996) *("Price Cap NPRM").*

[225] *See Price Cap FNPRM.*

surfaced that would take an even more prescriptive approach in light of the perceived competitive shortcomings of the current marketplace.[226]

The Commission's reluctance seems to be contrary to the stated goal of ultimately moving these services to a fully competitive price structure.[227] For example, geographic deaveraging would permit carriers to set prices based on smaller geographic units, therefore driving prices closer to costs. Geographic deaveraging would also correct the false signals that the current regulated market sends for these services. The current system averages out costs over large service areas and thus sets rates artificially high in some areas (thereby creating a perverse incentive for entry) and artificially low in other areas (thereby creating a perverse incentive against entry). Other proposals such as volume and term discounts also seem consistent with cost-based pricing and would spur more competitive pricing for these services, along with their obvious consumer benefits. Such cost-based reforms are consistent with the overall Commission policy of driving prices to costs and creating market-based rates.

The Price Cap NPRM also considered the possibility of "whether price cap regulation of new services is still needed or warranted."[228] The Price Cap NPRM further observed that "[m]any new services take advantage of new technical capabilities, and the delay entailed in obtaining regulatory approval may harm consumer welfare. Because the underlying core access

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[226] *See id.*

[227] *See supra* section III(G).

[228] *Price Cap NPRM* at 21440. The Commission had previously decided to loosen the tariff requirements on new service offerings. *Id.* at 21490.

service offerings, as well as unbundled network elements, would still be available, there may be little benefit from requiring an incumbent LEC to obtain regulatory approval before introducing a new service."[229] The Commission also considered whether some services formerly subject to the waiver requirement could also be eliminated from price cap regulation if "competing carriers can develop substitute services to respond to customer needs." [230] Unfortunately, the Commission has deferred a decision on this issue as well. New services represent another fertile area for the FCC to roll back regulation because competition can be virtually assumed and lessened regulation will encourage innovation. Ultimately opening new service markets and granting increased pricing flexibility will encourage a transition to more open markets, innovation, and lower prices for consumers.

3. The Lack of a Pass Through Requirement Imposed upon IXCs Has Undermined End User Benefits.

The long-term goal of price caps is to lower rates for consumers and this goal has, in part, been achieved. Lower access charges have resulted in some consumer gains. However, it still appears as if the regulatory scheme does not "flow through" access charge reductions to consumers unaltered. Instead, consumers only receive some percentage of the overall reduction. Indeed by one estimate while access charges fell by an average of 21% from 1993-97,[231] AT&T's

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[229] *Id.* at 21440.

[230] *Id.* at 21441.

[231] *See* FCC Monitoring Report, Table 5.12, May 1997, and John Scott, Competitive Pricing Division, Federal Communications Commission (preliminary).

residential basic rates for long distance carriers climbed 18%.[232] Moreover, pricing in the long distance market, especially for residential users, is still largely a function of lock step pricing among the big three: AT&T, Sprint and MCI.

In 1997, the FCC, not unaware of this phenomenon, secured a deal with AT&T to flow through access charge reductions to consumers.[233] Even this "deal" only flowed through half of the access charge reductions.[234] The Commission has voiced its belief that the market will eventually force carriers to flow through the benefits of reduced access charges to consumers.[235] However, until the long-distance marketplace forces increased flow through of these reductions or the Commission mandates such flow throughs, the full benefits of price caps will be lost to consumers.

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[232] *See* "AT&T Proposes $750 Million Rate Hike, New Calling Plan Aimed at High-Volume Residential Users," *Telecommunications Reports*, Jan. 3, 1994 (announcing a 6.3% rate hike); "AT&T and Rivals Boost Rates Further," *Wall Street Journal*, Nov. 29, 1994, p. A3 (3.7% rate hike); "AT&T to Raise Basic Prices an Average 40c a Month," *Bloomberg News Services*, Feb. 16, 1996 (4.3% rate hike); "AT&T Follows MCI, Sprint with Long Distance Rate Increases," *Telecommunications Reports*, Dec. 2, 1996 (5.9% rate hike); *Bill Harvesting II*, PNR & Associates (indicating a 5.8% rate decrease in July 1997and a 2.7% rate hike in November 1997). Cumulatively, these rate changes amount to an increase of 18% from 1993 to 1997.

[233] *See* Ola Kinnander, *AT&T Puts Pressure on FCC to Reduce Access Charges More Than Had Been Expected*, COMMUNICATIONS TODAY, May 6, 1997, at 1. The deal itself has also drawn the ire of some carriers who believe the reductions in access charges were simply too steep.

[234] *Id.*

[235] *Fourth Report and Order* at 16717.

C. The Commission Should Chart a Price Caps Course Consistent with its Initial Goals and the Ultimate Destination of Full Competition.

The Commission can move in a common sense direction by returning price caps to first principles to ensure that the incentive-based structure is preserved and consumers enjoy the benefits of local carriers efficiency gains. The Commission should:

- simplify the X-factor calculations to maintain their statistical integrity. This will limit charges of political manipulation and outcome-based regulation, while assisting all parties in providing relevant comment and data.

- adopt a single X-factor and maintain it over the long haul to create firm LEC incentives to become more efficient. This will lend predictability to price cap regulation and increase local carriers' ability to take advantage of the profit incentives, while allowing long distance carriers and consumers to rely on lower fees.

- restrain from tinkering with the X-factor itself or the calculation formula. Price caps are inherently imprecise. The Commission's constant tampering to "fix" this problem or that miscalculation has created a larger problem: complete unpredictability and constant uncertainty.

- refrain from making retroactive adjustments in the cap that deny LECs the benefit of their bargain. The entire regime is based on the ability to keep profits created by large efficiency gains; the subsequent reclamation of these gains when doing so cannot alter the carrier's past efficiency undermines the core incentives of the regime.

- eliminate the consumer product dividend so that the cap reflects actual achievable efficiency gains. The CPD may have been necessary in the transition from a rate of return regime to price caps. That utility has now disappeared. An accurate X-factor makes the CPD an anachronism.

- adopt an explicit pass through requirement that will require long distance carriers to pass through price cap reductions to consumers. This requirement is needed to guarantee that consumers enjoy the benefits of price cap reductions, and eliminates the need for side deals to promote these policies.

In addition to these changes, the Commission should also use price caps as a transitional mechanism to the eventual free market. These changes include:

- increased pricing flexibility. As flexibility increases, the price cap regime moves closer to functioning like a true marketplace. This can be achieved while still reducing overall rates by the X-factor. This flexibility could be achieved through such reforms as geographic deaveraging, permitting volume and term discounts, and the elimination of price cap service categories within baskets.

- placement of new services outside of the caps. The market for new services is largely competitive. In order to encourage innovation and transition to the free market, these services should be placed outside the price cap regime.

These changes can ensure that the promises of the price cap regulation voyage are achieved, while easing and speeding the journey to the fully competitive marketplace destination to which all parties purportedly aspire.

CONCLUSION

In replacing rate-of-return regulation with price caps, the FCC adopted a system with great potential for finally bringing market forces to local telephone pricing. That initial promise, however, has not fully materialized due to well-intentioned, but ultimately misguided efforts to tinker with the price caps course to competition. Although the price cap voyage has made substantial progress, the Commission would be well-served to get back onto its initial course in order to reach the destination of competition as soon as possible. Until the obstacles to market forces disappear, consumers will not experience the true benefits of the price cap system.